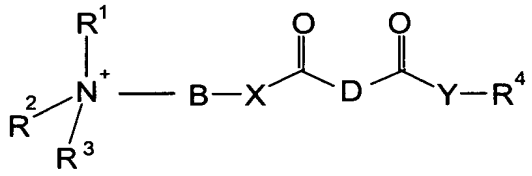
What is claimed is:

1. The use of compounds of the formula (1)



(1)

where

R^1, R^2 are each independently C_1- to C_{22}-alkyl, C_2- to C_{22}-alkenyl, C_6- to C_{30}-aryl or C_7- to C_{30}-alkylaryl,

R^3 is C_1- to C_{22}-alkyl, C_2- to C_{22}-alkenyl, C_6- to C_{30}-aryl or C_7- to C_{30}-alkylaryl, $-CHR^5-COO^-$ or $-O^-$,

R^4 is M, hydrogen or an organic radical which optionally contains heteroatoms and has from 1 to 100 carbon atoms,

B is an optionally substituted C_1- to C_{30}-alkylene group,

D is an organic radical which optionally contains heteroatoms and has from 1 to 600 carbon atoms,

X, Y are each independently O or NR^6,

R^5, R^6 are each independently hydrogen, C_1- to C_{22}-alkyl, C_2- to C_{22}-alkenyl, C_6- to C_{30}-aryl or C_7- to C_{30}-alkylaryl, and

M is a cation

as gas hydrate inhibitors.

2. The use as claimed in claim 1, wherein B contains hydroxyl groups.

3. The use as claimed in claim 1 and/or 2, wherein B is a C_2- to C_4-alkylene group.

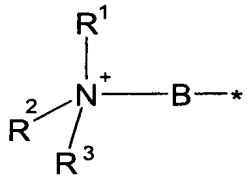
4. The use as claimed in one or more of claims 1 to 3, wherein R^1 and R^2

are each independently an alkyl or alkenyl group of from 2 to 14 carbon atoms.

5. The use as claimed in one or more of claims 1 to 4, wherein R^3 is an alkyl or alkenyl group having from 1 to 12 carbon atoms.

6. The use as claimed in one or more of claims 1 to 5, wherein R^5 and R^6 are hydrogen.

7. The use as claimed in one or more of claims 1 to 6, wherein R^4 is a radical of the formula (2)



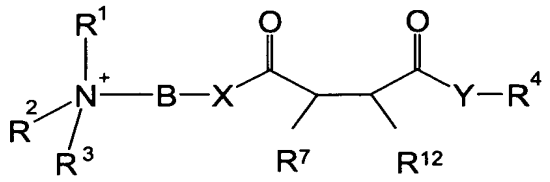
(2)

where R^1, R^2, R^3 and B are each as defined in claim 1.

8. The use as claimed in one or more of claims 1 to 7, wherein D is a C_2- to C_{50}-alkylene or C_2- to C_{50}-alkenylene group.

9. The use as claimed in one or more of claims 1 to 7, wherein D is derived from substituted succinic acid derivatives having from 10 to 100 carbon atoms.

10. The use as claimed in one or more of claims 1 to 7, wherein D is a radical of the formula (3)

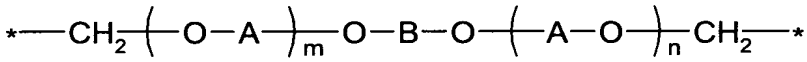


(3)

where

R^7 and R^{12} are each either hydrogen or a C_2- to C_{100}-alkyl or C_2- to C_{100}-alkenyl radical which is obtainable as an oligomer of C_2- to C_8-alkenes and may be straight-chain or branched, with the proviso that exactly one of the R^7 and R^{12} radicals is hydrogen, and R^1, R^2, R^3, R^4, X, Y and B are each as defined in claim 1.

11. The use as claimed in one of more of claims 1 to 7, wherein D is a radical of the formula (4)



(4)

where A is a C_2- to C_4-alkylene group which may be straight-chain or branched, m and n are each independently a number in the range from 0 to 30 and B is as defined in claim 1.